

ABSTRACT

An improved mine roof bolt is disclosed. The mine roof bolt comprises a bolt portion having a camming nut rigidly fixed to it and a threaded end and an expansion shell having a central threaded nut with wedge fingers extending from it. The expansion shell is threaded onto the threaded section of the bolt. Turning the bolt while it is in a hole causes the expansion shell to move along the bolt and brings the wedge fingers into contact with the camming nut, spreading the wedge fingers into contact with the hole sides. As the turning of the bolt continues, the relative movement of the camming nut and wedge fingers increases the wedging effect within the hole until the bolt is anchored in the hole. While turning of the bolt may serve to mix a catalytic adhesive, the adhesive is not needed to activate the mechanical anchoring mechanism of the mine roof bolt.